



HUMANITY  
CENTERED  
ROBOTICS  
INITIATIVE



BROWN

## **Hanumant Singh Northeastern University**

### **“Bipolar Robotics: Exploring the Arctic to the Antarctic with a stop in Hawaii for Fisheries Work”**



*Friday, April 21, 2017  
2-3pm  
CIT 477*

*Abstract:* The Arctic and Antarctic remain one of least explored parts of the world's oceans. In this talk we look at efforts over the last decade to explore areas under-ice which have traditionally been difficult to access. The focus of the talk will be on the robots, the role of communications over low bandwidth acoustic links, and navigation and mapping methodologies. This is all within the context of real data collected on several expeditions to the Arctic and Antarctic. I will also present results from our work related to robotics for Fisheries Stock Assessment.

**Hanumant Singh** graduated from the MIT WHOI Joint Program in 1995 after which he joined the staff at the Woods Hole Oceanographic Institution where he worked for 27 years. He recently moved to Northeastern University where he is a professor in the departments of ECE and MIE. His interests lie at the intersection of imaging and robotics for marine and polar applications. Over the course of his career he has participated in more than 50 research expeditions all over the world in support of Marine Archaeology, Marine Geology and Geophysics, Marine Chemistry, Coral Reef Ecology, Fisheries and Polar Studies.

Host: Stefanie Tellex/HCRI